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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,491	12/18/2001	Alexander Lifson	00-681	6559

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GEORGE A. CORY
BACHMAN & LaPOINTE, P.C.
Suite 1201
900 Chapel Street
New Haven, CT 06510-2802

EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 02/24/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,491

Applicant(s)

LIFSON ET AL.

Examiner

Christopher Verdier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-13 is/are pending in the application.
- 4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 7-10 is/are allowed.
- 6) ☒ Claim(s) 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Applicant's Amendment dated January 7, 2004 has been carefully considered but is deemed non-persuasive. Claims 1-5 and 7-13 are pending. The specification has been amended to correct the informality set forth in the first Office action and to provide antecedent basis for the subject matter of claims 2 and 8. Claim 10 has been amended to correct the informality therein. Correction of the above matters is noted with appreciation.

With regard to the objection to the drawings under 37 CFR 1.83(a) as failing to show the claimed subject matter of the pitch that decreases in magnitude from the suction end to the discharge end (claim 4), and the additional thermal mass positioned on the rotor (claim 8), Applicant has argued that figure 2 schematically illustrates rotor pitch that decreases in magnitude through illustration of a resultant load from such a rotor, and that this is sufficient to comply with 37 CFR 1.83(a). This argument is not persuasive because 37 CFR 1.83(a) states that the drawing(s) in a nonprovisional application must show every feature of the invention specified in the claims, and that only conventional features not necessary for an understanding of the invention may be shown as a graphical drawing symbol or a labeled rectangular box. Because the rotor pitch that decreases in magnitude from the suction end to the discharge end is not a conventional feature not necessary for the understanding of the invention, it must be shown in the drawings. With regard to the objection to the drawings under 37 CFR 1.83(a) as failing to show the claimed subject matter of the additional thermal mass positioned on the rotor (claim 8), Applicant has argued that the specification is clear that other locations can be desirable, and that Applicants are not required to provide drawings showing each and every potential location of the additional thermal mass, and that with the teachings of the specification and the drawings, one of

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ordinary skill in the art would be able to comprehend and perform the relevant positioning of the additional thermal mass. These arguments are not persuasive for the reasons set forth above, namely that the drawing(s) in a nonprovisional application must show every feature of the invention specified in the claims. Applicant has the option of canceling claims 4 and 8 if he does not desire to amend the drawings.

Applicant's argument that new claims 11-12 define over Japanese Patent 3-78,594 is not persuasive. Applicant has argued that the structures of the Japanese Patent are either positioned for other purposes, or in a random manner, in that the Japanese Patent does not disclose or suggest identification of a particular location where thermal distortion is an issue, and the specific positioning of thermal masses at that location, while dependent claim 12 limits the positioning to those areas identified as needing the additional thermal mass. These arguments are not persuasive, because in Japanese Patent 3-78,594 the discharge end (near 14) is a known area of excessive thermal deflection, and has additional thermal mass 7, 5b, and 5 positioned at the location of excessive thermal deflection. When the compressor is made, the person making it inherently identifies the location of excessive thermal deflection when providing the additional thermal masses 7, 5b, and 5 on the compressor. Note that anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of inherent properties that may be possessed by the reference. *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject of a claim when the reference discloses every feature of

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the claimed invention, either explicitly or inherently. (see *In re Paulsen*, 30 F.3d 1475, 1478-1479, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994)).

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

This application presents claims for subject matter not originally claimed or embraced in the statement of the invention. New claims 11-13 are directed towards a method of controlling thermal deflection of components of a screw compressor, which are not originally claimed nor embraced in the statement of the invention. A supplemental oath or declaration is required under 37 CFR 1.67. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

Election by Original Presentation

Newly submitted claim 13 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly submitted claim 13 is directed to a method of controlling thermal deflection of components of a screw compressor, by operating an unloader to alter the load of refrigerant fed to the screw compressor, which is a newly perceived invention that was not previously claimed

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 13 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rotor pitch that decreases in magnitude from the suction end to the discharge end (claim 4), and the additional thermal mass positioned on the rotor (claim 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Examiner's Suggestion to Claim Language

The following is a suggestion to improve the clarity and precision of the claims:

In claim 12, line 2, "a" may be changed to -- the --.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 3-78,594 (figures 1, 3, and 5-6). Note the screw compressor comprising housing 2 and screw rotor 6/106/506/606 disposed in the housing and rotatable relative to the housing for compressing a refrigerant, and the additional housing thermal masses 7, 5b, and 5 positioned on the housing which absorb heat generated by the compressor in the operating condition and reduce thermal distortion caused by the heat, thus controlling thermal deflection of components of the screw compressor. In Japanese Patent 3-78,594, the discharge end (near 14) is a known area of excessive thermal deflection, and has the additional thermal masses 7, 5b, and 5 positioned at the location of excessive thermal deflection. When the compressor is made, the person making it inherently identifies the location of excessive thermal deflection when providing the additional thermal masses 7, 5b, and 5 on the compressor. At the thickened housing portion 5b, 5, the thermal mass is selectively positioned and inherently reduces the excessive thermal deflection. With regard to the recitation in claim 11, line 3 of "for compressing a refrigerant", this is a recitation of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the

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prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Allowable Subject Matter

Claims 1-5 and 7-10 are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (703)-308-2638. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (703) 308-1044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher Verdier
Primary Examiner
Art Unit 3745

C.V.
February 20, 2004